

Entanglements of Wastelands of Fashion: A curricula re-vision

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The prevailing fast fashion model operates at a rapid tempo and prioritises speed-to-market, with each stage of the global supply chain exerting detrimental effects on society and the environment. Education is a critical field in which to start re-visioning the discipline, offering alternative ways of educating fashion designers, and transforming the status quo of the fashion industry. This exploratory paper sets out to establish the teaching and learning of the environmental and social implications of the intricate fashion system through a transformative pedagogy at the MA Fashion at the Royal College of Art (RCA).

The programme is already undergoing a reform period, moving away from the singular iconic designer role, seasonal collections, and fossil-fuel derivatives to transformative social action. Through critical, unbounded imagination, the RCA's Fashion MA is conceived as a catalytic transformative practice committed to a long-term systemic transformation of fashion's vision, production and consumption.

This paper advocates for a pivotal transition towards a critical systems curriculum, integrating the significance of ancestral practices, the concept of waste colonisation, and fundamental principles grounded in regenerative cultures. We aim to inspire and equip students to be initiators of change, so we ask:

How might fashion education through critical experimentation offer a new way of reconfiguring our relationship with the earth and its inhabitants?

Keywords: re-visioning, fashion futures, wastescapes, critical pedagogy, regeneration

RSD Categories: Learning & Education, Socioecological Design

Fashion and systems thinking

The fashion industry urgently requires a radical reimagining, challenging the far wider system of which fashion education is a part. Fashion education in academic institutions continues to follow the conventional model of designing collections and uncritical making, stressing the urgent need for adopting a transformational pedagogy. This exploratory paper addresses the transformation of fashion design education through de-fashioning the curriculum—a term coined by the activist group Fashion Act Now¹ as a provocation to focus on fashion itself and "to dismantle the current fashion system and replace it with a pluriverse of clothing systems that are fair, local, decolonial and profoundly respectful and nurturing" (Niessen, 2022, p. 439). In *Meeting the Universe Halfway*, Barad (2007, p. 394) defines "responsibility as an ongoing responsiveness to the entanglements of self and others, here and there, now and then." The MA in Fashion at the Royal College of Art (RCA) aims to foster a critical understanding of the industry's deeply toxic entanglements to transform the fashion system from its current position to a restorative practice.

Stewart Brand's Pace layers show fashion as a moving state of change, describing the discipline as a design culture often imaginatively entangled in itself, constantly engaging with new ideas; a fast layer, an industry that appears kaleidoscopic and unrestrained from other layers like governance or nature (Figure 1).² Philosopher Emanuele Coccia defines fashion as the Trojan horse that calls things into question, rejects definitive answers, elevates hybridity over distinction, and responds to contemporary educational debates and social challenges (Abriat, 2021).

¹ Fashion Act Now <https://www.fashionactnow.org/>

² Stewart Brand and Paul Saffo. Pace Layers Thinking. *The Long Now Foundation*. Filmed on January 27, 2015. <https://longnow.org/seminars/02015/jan/27/pace-layers-thinking/#:~:text=The%20whole%20combines%20learning%20with,how%20a%20healthy%20society%20works>

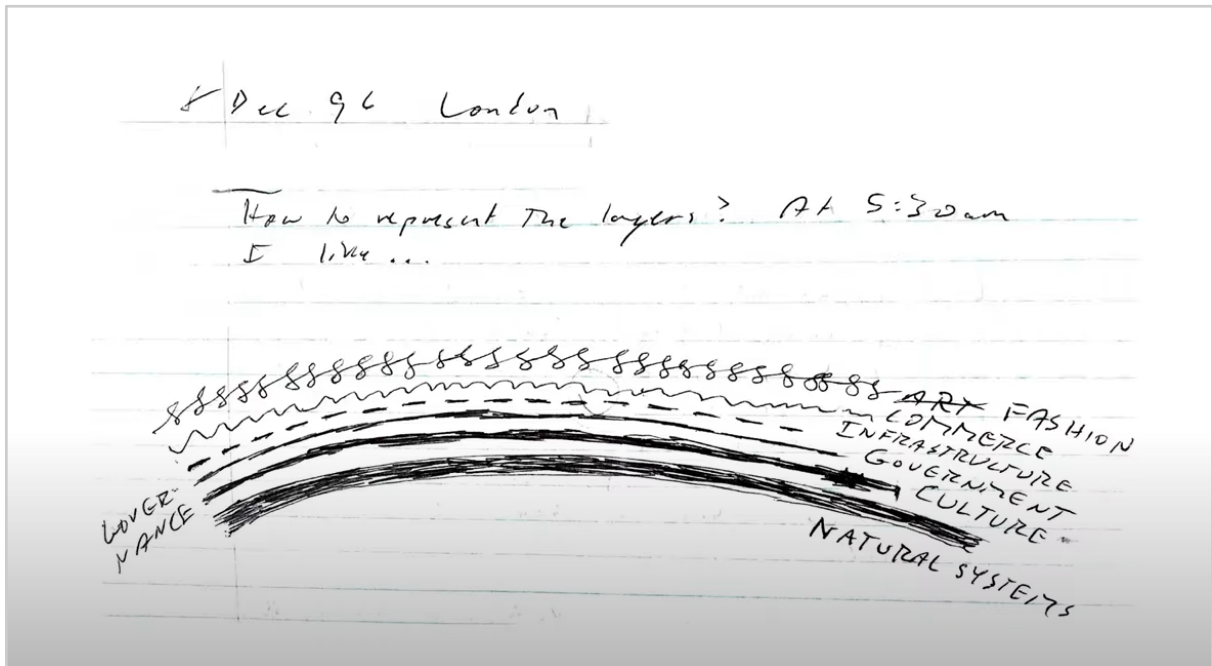


Figure 1. Stewart Brand's conversation with Paul Saffo (2015). The first iteration of the pace layers was drawn by Brian Eno back in 1996. Source: The Long Now Foundation.

Fashion Wastescapes

The prevailing fast fashion model operates at a rapid tempo and prioritises speed-to-market, with each stage of the global supply chain exerting detrimental effects on society and the environment. Fashion is a highly polluting sector, as underscored by consecutive reports from the United Nations Environment Programme (UNEP). Its unsustainable patterns of consumption and production are contributing directly to climate change, loss of biodiversity, and rise in pollution and waste (UNEP, 2021; UNEP, 2023). Yet the Industry is not on track to meet the 2030 Sustainable Development Goals (SDGs), the 2015 Paris Agreement on climate change or the 2030 Kunming-Montreal Global Biodiversity Framework (GBF).

With speed and production costs decreasing comes a corresponding increase in overconsumption and disposal of clothing through a linear flow of use - consume - discard, and at the end of the garment life cycle, clothing is then donated to recycling centres, textile banks, clothes collections, and charities. In recent years, there has been considerable discourse on the circular economy (Gomes et al., 2023; Schumacher & Forster, 2022); however, no silver bullet will resolve wasteful and damaging practices in the garment industry with the current unecological production levels. Recycling overproduction by fashion retailers alone has several constraints, as less than 1% of garments made of mixed fibres or shorter, lower-quality fibres are recycled into new garments (Pucker, 2022).

The UK alone donated 700,000 tonnes of clothing in 2021, 70% of which were baled and shipped to the Global South (Tonti, 2023). Shipped clothing to developing countries, commonly referred to as waste colonialism, follows “historical colonising practices, where high-income nations exercise their privilege and power to attain their goals while undermining the rights of low-income communities to clean and safe living conditions.” (Huang, 2022). These waste heaps pose significant health and ecological hazards to nearby communities due to the discharge of toxicants. These wastescapes cut across institutions, individuals, and processes to reveal a conflict of values connected to geopolitics, our bodies, society and nature.

Design education as a response

The Royal College of Art's (RCA) Fashion practice is undergoing a reform period, moving away from the singular iconic designer role, seasonal collections, and fossil-fuel derivatives to transformative social action. Through critical, unbounded imagination, the RCA's Fashion MA is conceived as a catalytic transformative practice committed to a long-term systemic transformation of Fashion's vision, production and consumption.

The fashion industry today is a legacy of the extractive and growth-oriented economic systems of the past 300 years of the Industrial Revolution. Yet fashion, within education, can act as a more fluid, considered and imaginative practice. During the Master's programme at the RCA, students are encouraged to critically and radically re-imagine and re-vision their design agency with long-termism in the broader system of which fashion is a part. We believe it is key for students to understand the inter-relations and traverse across scales and disciplinary silos where Fashion has been historically nested. In 'de-fashioning' and re-imagining the curriculum, seeking to make it a preferable place through active work, students and teachers come together in a process called "decodification" to uncover real problems and to ask questions (Is this fair? Is this just? Was there equality?) (Rugut & Osman, 2013, p. 25). As we aim to inspire and equip them to be initiators of change, we ask:

How might fashion education through critical experimentation offer a new way of reconfiguring our relationship to the earth and its inhabitants?

The cathedral project: a three-year overview

The Entanglements of Wastelands of Fashion project unfolds over a three-year timeline referred to as the Cathedral, a term evoking the idea of 'having the faith to do the work'. The project embraces Cathedral thinking— a term introduced by Broach to describe a critical space for imagining and building new ways of seeing through engagement with communities and a beginning to comprehend systems that further the vision across existing time boundaries. Currently, students enrolled in the one-year MA programme are laying the

foundation for the Cathedral, which will serve as a framework for subsequent cohorts of MA Fashion students over the following two years.

YEAR 1—DISCOVER—Envision Alternative Futures 01: Systemic considerations engagement with communities, cosmovisions and landscapes.

YEAR 2—DEVELOPING NETWORKS OF CARE—Envision Alternative Futures 02: Forward-revisioned fashion ideas through collaboration projects.

YEAR 3—DEVELOPING A RESTORATIVE PRACTICE - Envisioning Alternative Futures 03: rethinking the profession.

For this paper, we will focus on the first year of systemic curricula implementations of the entangled wastelands of Fashion, where the MA Fashion programme aims to be a pioneering course in which a regenerative culture is used as a lens to approach to heal and make the discipline thrive in consideration for others. According to Wahl (2017), a regenerative culture is defined as "healthy, resilient, and adaptable; it prioritises caring for the planet and all life, recognising this as the most effective approach to ensure a thriving future for humanity." Wahl (2016) emphasises the importance of designing with a salutogenic (health-generating) intention, emphasising the need to prioritise human, ecosystem, and planetary health in all aspects of design, technology, and planning.

The primary objective is to enhance students' comprehension of the complexities surrounding ethical sourcing and more sustainable material practices within the context of prevailing broken fashion systems. This is achieved through a combination of lectures, workshops, field trips, symposiums, and collaborative initiatives.

The first part of the year focused on the necessary understanding of planetary boundaries (Richardson et al., 2023), the detrimental effects of fossil fuels use in fabrics, fast fashion supply chain eco-socio-political issues, the notion of waste colonialism and challenges to recycling. The second part of the academic year focused on the value of indigenous cosmovisions, soil regeneration, biomaterials, local production and regenerative futures. Regenerative design is a systems approach towards design based on whole systems considerations and providing health back to the planet. Given the urgency and magnitude of the socio-ecological crisis, Bill Reed (2007) stresses the importance of prioritising the health of ecological systems as the foundation for design rather than merely minimising environmental damage. We aim to cover these topics through experiential learning: learning by doing and collaborative and reflective learning experience through being immersed (see Kolb, 2009), e.g. taking students to see and feel the volume of clothing collectors before this is shipped to the Global South or connecting to the land and value of local production by taking part of activities in a regenerative farm.

Term I

Introductory talks: From a Global South perspective

The academic year commenced in September 2023 with a lecture on waste landfills and their implications on the Global South. Two women speakers were invited to the event. Joyce Addai-Davis from Ghana talked about the impact of waste on the environment, whilst Beatriz O'Brien from Fashion Revolution Chile gave an overview of the dumping of waste in the Atacama Desert. We discussed how clothing waste is often viewed as a 'crisis-ridden' in the Global South, whereas in most of the Global North, it is an externality not dealt with locally in order to sustain insatiable consumption.

WORKSHOP 001: Scrutinising the supply chain

Building on the launching talk's rationale during the first workshop students explored the local and global impact of fashion's wastelands. They discussed global statistics on clothing consumption and waste from their country of origin (e.g. is that country a producer? Is it a big consumer? Or is it the recipient of waste?). This was followed by a workshop about materials used in clothing.

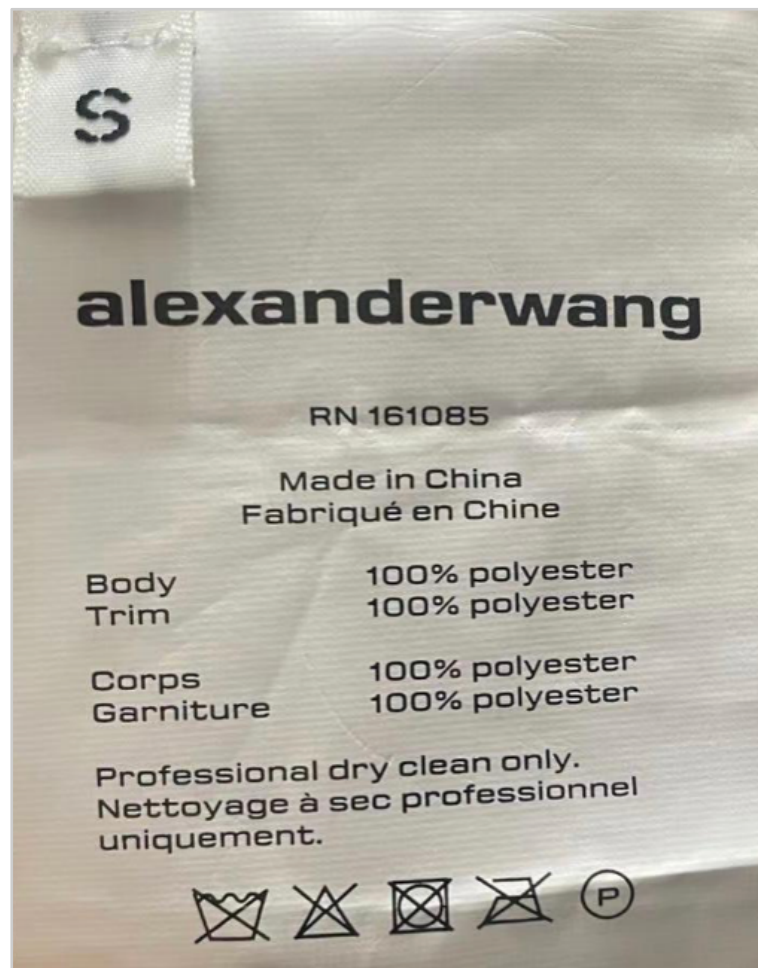


Figure 2. Analysing items of clothing from their wardrobes. £1180 Alexander Wang evening dress 100% polyester made in China. Source: Author's Own.

We asked students to come prepared with photographs of 2 items of clothing from their wardrobe (see Figure 2). One from a high-street retailer or high-volume brand and the other from a high-end or vintage second-hand brand. We asked students to identify the country of origin and the fibre content (e.g., 20% cotton, 80% polyester). Following that, they discussed the pros and cons of each of the fibres (e.g., cotton as water-intensive) and the impact of mixed-fibre (e.g. cotton and polyester) content on the end-of-life phase. Many students have described this moment as a pivotal, eye-opening and awakening experience that inspired them to take action as designers in subsequent projects.



Figure 3. Students experiencing volume and the sorting of clothes into bales for export to the Global South. Source: Author's Own.

FIELD TRIP 001: Dimensioning the fast Fashion volume on the way to Global South

This field trip involved visiting East London Textiles (ELT Ltd), a large sorting and clothing collector based in the Greater London Area (Figure 3). Over 200 tonnes of second-hand clothing arrive at the warehouse, where skilled staff sort clothing into categories that are then sent to Eastern Europe (Poland, Ukraine) and Africa with heavily soiled items shipped to Pakistan for shredding into fibres for carpet underlays. Students questioned the ethical, political, cultural and environmental impact of the trade and asked, "What would happen if the UK stopped this trade in second-hand clothing?"

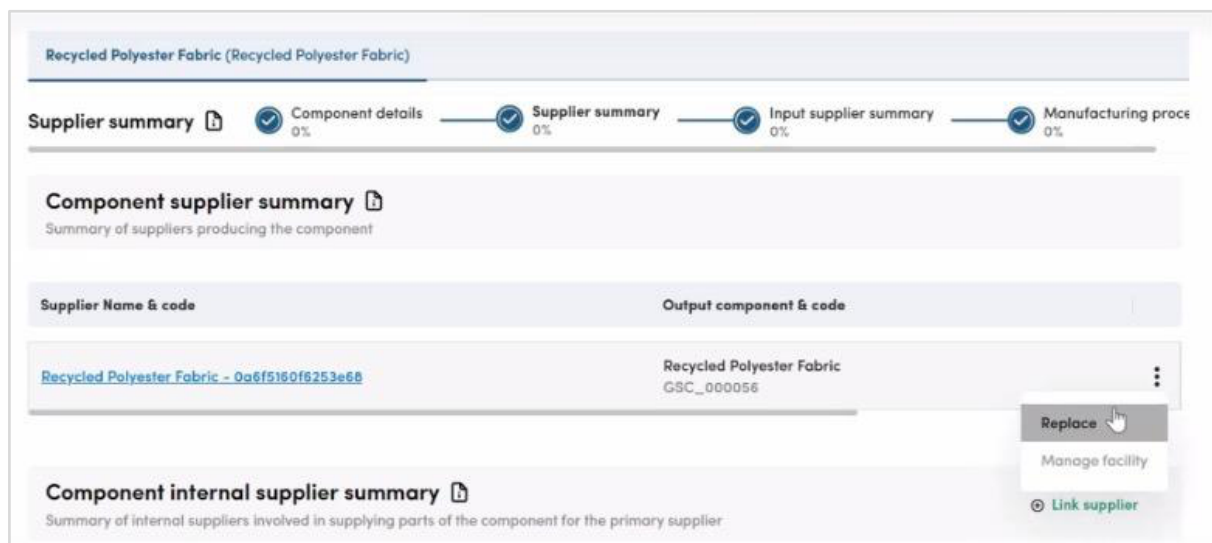


Figure 4. Hands-on LCA workshop by Green Story for RCA's Fashion students. Source: Green Story.

WORKSHOP 002: Life Cycle Assessment (LCA)

The second workshop introduced students to Life Cycle Assessments (LCA) of garments from cradle-to-gate through a collaboration with Green Story, a digital sustainability platform. During the session, renowned LCA textile expert Professor Dr Kannan Muthu and CEO Akhil Sivanandan presented an overview of LCAs in the textiles and fashion sector. This was followed by a hands-on workshop with students testing Greenstory's software and adding crucial data on supply chains (Figure 4). The software identified the impact of global as opposed to local supply chains on the planet. The Green Story LCA workshop allowed students to think critically from cradle to gate, calculating the environmental impact of decisions at every stage.

WORKSHOP 003: Reflective Practice

To conclude this series of talks, seminars, workshops and field trips, students were introduced to the concept of Wicked Problems by Horst and Rittel (1973, p. 163), where complex systems defy true or false answers, only "good or bad or more likely better or worse." Students were invited to respond to Donald Schon's (1987, p.3) elegantly described choice to designer-practitioners:

Shall he [the Designer] remain on the high ground where he can solve relatively unimportant problems according to prevailing standards of rigour, or shall he descend into the swamp of important problems and non-rigorous inquiry?

Some of their responses to this call are cited below:

My community cannot afford my product if I price my time at my real value. Is it sustainable if I am shouldering the loss?

I don't know the real longevity of my materials and how they would last over ten years. How can I sell them as 'made to last' if I don't know?

Term II

Through a series of reflective opportunities and provocations, triggering a space for disciplinary reflections, we introduced a series of instances for Fashion students to develop ecological consciousness, highlighting the relevance of locality and preserving and caring for life.

Introductory talks: Indigenous cosmologies + towards a transformative Fashion system

Maria Arroyo i Bacete, MA Fashion alumni, worked developing local natural dyes to scale at Albini for several years and has recently been appointed Innovation Manager at Fashion for Good. She ignited conversation about positive transformation across the entire fashion value chain through profound values of collaboration and community engagement. Maria stressed that designers' key skills are vision, critical thinking, ideation, flexibility, aesthetics, and story-telling.

Designer and academic Gabriela Farias Zurita then shared her extensive research and practice working with indigenous cosmologies (Aymara) in the Altiplano region in Chile (see Figure 5) and the concept of Aymara animism (the belief that materials are living matter). We see this as a specifically relevant case as the Aymara live on the border of the fast fashion dumping site in the Atacama desert. Zurita contributes to developing a critical space for imagination and building new ways of seeing through community engagement.

Earls, van Kessel, Araujo, and Grillo (1990) distinguish between the Aymara and Western approaches to the natural environment, noting that the Western person considers elements of the ecological environment as 'matter,' viewing the universe as an immense reservoir of material resources to be utilised according to individual discretion, often justified by biblical legitimisation, whilst in contrast, the Aymara people maintain a marked difference with the natural environment as they recognise themselves as children of the Sacred Earth and perceive themselves as 'siblings' to flora and fauna as relationships. Aymara materiality has a life that deserves respect and, as a worldview, instils an ethics characterised by respect, gratitude, and responsibility toward their surroundings.

Zurita believes the Aymara way of understanding the world brings us closer to a holistic view that is fundamental for the future, especially in the disciplines of creation, where the biggest challenge is moving away from commercial profit decoupled from meaning and relevance for the ecosystem/locality. Zurita shares the analogy of Chile's tectonic activity to depict how students should be open to being shaken up, restart, and look to other profound realities.



Workshop 003 and Fieldtrip 002: A regenerative lens

The year ends with a third workshop and a second field trip to a regenerative farm, where we discuss new ways of communicating these concepts relevant to Fashion thinking/making in a regenerative manner and show the importance of Fashion specificities as a contribution to the field. These final days will be in collaboration with designers Lee Roach and Louis Alderson-Bythell. Lee Roach leads with considerable experience from collaborative projects with Nike, Givenchy, Pangaia and Moncler, now re-visioning fashion with a more critical approach to how its future should exist in consideration to others (people and planet). Louis Alderson-Bythell is an RCA MA Fashion graduate with unusual experience developing innovative technologies for pollination with insects. Today, he is a member of the Royal Society of Sculptures and is currently studying for an MA in Regenerative Economics at the Schumacher College.

Figure 5. Zurita's talk describes the Aymara cosmology through its deep relationality with landscape and living material culture. Source: Gabriela Farias Zurita.

This leads into the next layer of the cathedral activities as we look to expand upon the initial set of areas to build a regenerative framework specifically through an entangled fashion lens:

- **Living systems:** In fashion education, how can we start addressing the toxicity of the supply chain and reconnecting to soil and planetary health through a whole systems approach?
- **Regenerating the body:** A reconnection with nature, mentally, physically and emotionally, by approaching the meaning and qualities of the layers that touch our bodies.
- **Language:** Through a regenerative lens, is there a new language to explore a different way of understanding, designing and thinking? An exploration of fashion's sense-based values and new narratives to be communicated.
- **Design practices:** Explore light touch design avenues through simplicity, inspired by Andrea Zittel's notion of 'liberation through limitation' and the idea of reduction to excellence. When working with non-industrialised processes and bio-materiality, we have to accept and work with different aesthetics (e.g. Fashion MA alums, Alice Robinson works with leather from grazing cows and natural dyes that result in uneven leather, where a scar has the potential to be seen as having character, accepting the life journey of a grazing cow) and limitations (natural colouring has a different colour potentiality in comparison with synthetic dyes).
- **Future human:** Thinking and living differently (rethinking lifestyles). This area aims to re-conceptualise the dynamics of our surroundings, rethink ancestral ways of dealing with clothing, and explore alternative hedonism (Soper, 2023).

Term III

Through critical experimentation, students are now encouraged to establish a commitment to fashion and identity for the future, using their own values and principles to develop a body of work. Their world role is to create, generate and convey through design, understanding to whom and why and with considered materiality. This must offer a unique system of aesthetics and propositions for Fashion from a critical and courageous perspective for the future.

Building blocks from the first Cathedral

At the end of this first year, 01 Envision Alternative Futures: systemic considerations, engagement with communities, cosmovisions and landscapes, we will look together at what was understood by regenerative futures based on the value of locality and a holistic view of values that challenges the normative model of a globalised large-scale industry reflecting on what that could mean for fashion futures.

We will conclude with a series of structured workshops asking: What are we discovering? What would you like to transmit to the next cohort? What remains, and what goes? What are the next steps? How can we build upon ideas for next year?

The plan is to pass through the struggles and complexity, create new navigation, learning, stories and suggestions, and synthesise these gathered thoughts into a framework and set of aims for the following year that can be accessed online for future learnings. This experimental pilot system is for new generations to collaborate and build upward.

Conclusion

The authors see fashion as a transformative practice that proposes radical hope through de-fashioning design education. This first exploratory Cathedral proposes a significant shift towards a critical systems Fashion curriculum by drawing on the unbounded capacity of fashion designers to become practitioners who use their emergent power in the service of social and environmental transformation.

We will scrutinise the toxicity of the fashion system, inviting design approaches that go deep into understanding how the entire Fashion system works, directing students' work towards a reflexive, imaginative and regenerative practice. This proposed positioning for fashion closely resonates with the concept of Earth Logic landscapes as outlined by Kate Fletcher and Mathilda Tham (2019, p. 42), encompassing diverse perspectives and knowledge systems essential for driving change, spanning different geographical locations and timeframes.

Each incoming year group will be asked to engage in reflective practice to explore how their identities as fashion practitioners shape their encounters with the community and localities. Through new representations and systemic lenses, we aim to form an ongoing cathedral curriculum to allow healthier possibilities for our future and other ways of living, the planet, and society. An iterative vision of the MA in Fashion learning environment can form the next generation of conscious, action-confident, transformative fashion designers.

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